

Docket No.: 01017/42148

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the applications:

Listing of Claims:

1. (currently amended) An isolated nucleic acid molecule encoding a polypeptide selected from the group consisting of:

(a) the nucleic acid molecule of SEQ ID NO: 13;

~~(b) the nucleic acid molecule that is nucleotides 1920-2820 of SEQ ID NO: 13;~~

[[[c)]] (b) the nucleic acid molecule of SEQ ID NO: 19;

[[[d)]] ~~(c) a nucleic acid molecule encoding the polypeptide of SEQ ID NO: 14; or a biologically active fragment thereof;~~

[[[e)]] ~~(d) a nucleic acid molecule encoding the polypeptide of SEQ ID NO: 20, or a biologically active fragment thereof;~~

~~(f) a nucleic acid molecule that encodes a polypeptide that is at least 90 percent identical to the polypeptide of SEQ ID NO: 14 as calculated using the computer algorithm FASTA with the default opening and gap penalties and the scoring matrix PAM-250;~~

~~(g) a nucleic acid molecule that encodes a polypeptide that is at least 90 percent identical to the polypeptide of SEQ ID NO: 20 as calculated using the computer algorithm FASTA with the default opening and gap penalties and the scoring matrix PAM-250;~~

~~(h) a nucleic acid molecule that hybridizes under stringent conditions of 0.2 X SSC and 0.1 percent SDS at a temperature between 55-65°C to the complement of any of (a)-(g) above;~~
and

[[[i)]] (e) a nucleic acid molecule that is the complement of any of (a)-([h]) d) above.

2. (currently amended) The An isolated nucleic acid molecule that is SEQ ID NO: 13 or SEQ ID NO: 19.

3. (canceled)

4. (canceled)

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5. (currently amended) An isolated nucleic acid molecule selected from the group consisting of: nucleotides 1-1689 of SEQ ID NO: 13 and nucleotides 1-1920 of SEQ ID NO: 13. ~~nucleotides 1920-2820 of SEQ ID NO: 13, nucleotides 2089-2820 of SEQ ID NO: 13, and nucleotides 2089-2859 of SEQ ID NO: 13.~~

6. (canceled)

7. (currently amended) A recombinant vector comprising the nucleic acid molecule of claim 1.

8. (currently amended) A recombinant vector comprising the nucleic acid molecule of claim 2.

9. (canceled)

10. (canceled)

11. (currently amended) A recombinant vector comprising the nucleic acid molecule of claim 5.

12. (canceled)

13. (previously presented) A host cell comprising the vector of claim 7.

14. (previously presented) A host cell comprising the vector of claim 8.

15. (canceled)

16. (canceled)

17. (currently amended) ~~[[A]]~~ An isolated host cell comprising the vector of claim 11.

Claims 18-25 (canceled)

26. (currently amended) A method of increasing the proliferation rate of a cell, comprising expressing in the cell the nucleic acid molecule of SEQ ID NO: 13 or SEQ ID NO: 19 ~~or a fragment or variant nucleic acid molecule thereof, wherein the variant nucleic acid molecule encodes a polypeptide that is at least 90 percent identical to the polypeptide of SEQ ID NO: 14 or 20 as calculated using the computer algorithm FASTA with the default opening~~

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and gap penalties and the scoring matrix PAM 250, and wherein the polypeptide encoded by the fragment or variant nucleic acid molecule has telomerase catalytic activity.

27. (currently amended) A method of increasing telomerase activity in a cell, comprising expressing in the cell the nucleic acid molecule of SEQ ID NO: 13 or SEQ ID NO: 19, ~~or a fragment or variant thereof, wherein the complement of the variant nucleic acid molecule hybridizes to the nucleic acid molecule of SEQ ID NO: 13 or 19 under stringent conditions of 0.2 X SSC and 0.1 percent SDS at a temperature of 55-65°C, and wherein the fragment or variant has telomerase catalytic activity.~~

28. (previously presented) A method of decreasing telomerase activity in a cell, comprising expressing a variant nucleic acid molecule of ~~SEQ ID NO: 13 or~~ SEQ ID NO: 19 in a cell, wherein the variant nucleic acid has the codon for aspartic acid at position 868 of SEQ ID NO: 20 changed to a codon for alanine and the variant nucleic acid does not have telomerase protein 2 catalytic activity.

29. (currently amended) An isolated nucleic acid molecule encoding a variant polypeptide, wherein the codon for aspartic acid at amino acid position 868 ~~or 869~~ of SEQ ID NO: ~~[[19]]~~ 20 is changed to a codon for alanine.

30. (currently amended) An isolated nucleic acid molecule encoding a mutant variant polypeptide, wherein the ~~codons~~ codon for aspartic acid at amino acid positions 868 ~~and 869~~ of SEQ ID NO: ~~[[19]]~~ 20 ~~are~~ is changed to ~~codons~~ a codon for alanine.

Claims 31-32 (canceled)

33. (previously presented) A transformed or transfected host cell expressing a nucleic acid molecule comprising the sequence of SEQ ID NO: 13 or SEQ ID NO: 19.

Claims 34-35 (canceled)